

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 26-41 (canceled)

42. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle in which the chloride channel ClC-7 is preferentially functionally expressed with respect to one or both of the chloride channels ClC-3 and ClC-6.

43. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 42, in which the chloride channel ClC-7 is functionally expressed, but in which one or both of the chloride channels ClC-3 and chloride channel ClC-6 is not expressed or is expressed to only a reduced functional extent.

44. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 43, in which both of the chloride channels ClC-3 and ClC-6 are not expressed or are expressed only to a reduced functional extent.

45. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle according to claim 42, in which the chloride channel ClC-7 is functionally preferentially expressed with respect to each of the chloride channels ClC-3, ClC-4, ClC-5 and ClC-6.

46. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle according to claim 42, in which the chloride channel ClC-7 is functionally expressed, but in which the chloride channels ClC-3, ClC-4, ClC-5 and ClC-6 are not expressed or are expressed to only a reduced functional extent.

47. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle according to claim 46, which does not express or expresses to only a reduced functional extent the chloride channels ClC-1, ClC-2, ClC-Ka, ClC-Kb, ClC-3, ClC-4, ClC-5 and ClC-6.

48. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle in which expresses the chloride channel ClC-3 is preferentially functionally expressed with respect to the chloride channel ClC-7.

49. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 48, which expresses the chloride channel ClC-3, but does not express or expresses only to a reduced functional extent the chloride channel ClC-7.

50. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle in which the chloride channel ClC-4 is preferentially functionally expressed with respect to the chloride channel ClC-7.

51. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 50, which expresses the chloride channel ClC-4, but does not express or expresses only to a reduced functional extent the chloride channel ClC-7.

52. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 51, which expresses the chloride channel ClC-4, but does not express or expresses only to a reduced functional extent the chloride channels ClC-3, ClC-5, ClC-6 and ClC-7.

53. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle in which the chloride channel ClC-6 is preferentially functionally expressed with respect to the chloride channel ClC-7.

54. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 53, which expresses the chloride channel ClC-6, but does not express or expresses only to a reduced functional extent the chloride channel ClC-7.

55. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 48, which expresses the chloride channel ClC-3 and the chloride channel ClC-6, but does not express or expresses only to a reduced functional extent the chloride channel ClC-7.

56. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 48, which expresses the chloride channels ClC-1, ClC-2, ClC-Ka, ClC-Kb, ClC-3, ClC-4, ClC-5 and ClC-6, but does not express or expresses only to a reduced functional extent the chloride channel ClC-7.

57. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 48, which expresses the chloride channel ClC-3, but does not express or expresses to only a reduced functional extent the chloride channels ClC-4, ClC-5, ClC-6 and ClC-7.

58. (new) A cell, or a cell line, or a cell membrane preparation or cell vesicle as claimed in claim 53, which expresses the chloride channel ClC-6, but does not express or expresses to only a reduced functional extent the chloride channels ClC-3, ClC-4, ClC-5 and ClC-7.

59. (new) A method for the identification and testing of substances suitable for inhibiting the chloride channel ClC-7, which method comprises contacting substances to be tested with cells, cell membranes, or cell vesicles as claimed in claim 42 and measuring the effect of said substances on the activity of chloride channels in said cells, cell membranes, or cell vesicles

60. (new) A method as claimed in Claim 59, for the identification and testing of active compounds for treatment of osteoporosis or Paget's disease.

61. (new) A method for the identification and testing of substances suitable for inhibiting the chloride channel ClC-3, which method comprises contacting substances to be tested with cells, cell membranes, or cell vesicles as claimed in claim 48 and measuring the effect of said substances on the activity of chloride channels in said cells, cell membranes or cell vesicles.

62. (new) A method for the identification and testing of substances suitable for inhibiting the chloride channel ClC-6, which method comprises contacting substances to be tested with cells, cell membranes, or cell vesicles as claimed in claim 53 and measuring the effect of said substances on the activity of chloride channels in said cells, cell membranes, or cell vesicles.

63. (new) A method for the identification and testing of substances suitable for inhibiting the chloride channel ClC-4, which method comprises contacting substances to be tested with cells, cell membranes, or cell vesicles as claimed in claim 50 and measuring the effect of said substances on the activity of chloride channels in said cells, cell membranes or cell vesicles.

64. (new) A method as claimed in Claim 59 or any one of claims 61 to 63, for the identification and testing of active compounds which are suitable as psychotropic pharmaceuticals.

65. (new) A process for the identification and testing of substances which are suitable for inhibiting one or more chloride channels from the group consisting of ClC-3, ClC-4, ClC-6 and/or ClC-7, in which:

a) on cells according to any one of claims 42 to 58, the luminal pH of the compartments which express the channel and/or the potential across the membrane enclosing the channel is measured,

b) the cells are brought into contact with a substance and

c) the luminal pH of the compartments which express the channel and/or the potential across the membrane enclosing the channel is measured again on the cells,

the difference between the pH and/or the membrane potential before and after addition of the substance determining the activity of the substance.

66. (new) A process according to claim 65, wherein the pH is measured by accumulation of substances in compartments with a particular pH or detection of indicator substances which are formed in pH-dependent reactions in the compartments.

67. (new) A process according to claim 65, wherein the potential is measured using potential-sensitive dyestuffs or protein-coded potential sensors.